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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,309	08/17/2001	Tetsuo Nakamura	Q65828	3931

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EXAMINER	
CHEA, THORL	

ART UNIT	PAPER NUMBER
1752	

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/931,309	NAKAMURA ET AL.	
	Examiner	Art Unit	
	Thorl Chea	1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4 and 6-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 , 4,6-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 4 are rejected under 35 U.S.C. 103(a) as obvious over Usagawa et al, US Patent No. 5,057,406 (Usagawa) in view of The Theory Of The Photographic process, Fourth Edition, T.H. James, 1989 (James).

Usagawa disclosed a silver halide material containing dye within the scope of the claimed invention. See the compound of Usagawa in column 12, compound 35 which contains a furan group vs compound of formula (I) of claims 1, 4 wherein Y is furan ring group; Z is an atomic group necessary to form 5-membered nitrogen atom ring, R is a substituted alkyl group and p is 0; compound in formula 4 when X^{51} and X^{52} is a carbon atom. The compound of Usagawa in column 11, compounds 31-34 vs the compound (XXX) in claim 5 Y^{61} is thiophene ring, X^{61} and X^{62} is carbon atom; R^{61} and R^{62} is a substitute alkyl group. James on page 203, Table 8.3 discloses electrochemical data of homologous series of cyanine dyes and related ionization/electron-affinity data. See especially nuclei in the first column, which show the heterocyclic group containing oxygen, sulfur, and carbon atoms. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the sulfur or oxygen atom in the heterocyclic nuclei of the dye of Usagawa with an expectation of achieving a highly useful dye, and thereby provide an invention as claimed. Closely related homologs,

analogs, isomers in chemistry may create a prima facie case of obviousness. In re Dillon 16 USPQ 2d 1897, 1904 (Fed. Cir. 1990); In re Payne 203 USPQ 245 (CCPA 1979); in re Mills 126 USPQ 513 (CCPA 1960); In re Henze 85 USPQ 261 (CCPA 1950); In re Hass 60 USPQ 544 (CCPA 1944).

3. Claims 1-2, 4, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. 2000-63690 (PN'690).

See the compound of formula (II) in the P'690, English abstract, which contains Y2 as O, S, Se, N, or C and Q is a group of nonmetallic atoms necessary to from a benzene ring having heterocyclic fused thereto; A2 a group necessary for forming a methine pigment. See also the dye in column 11-14 and the exemplified in columns 21-76 dyes D-1 to D-146 wherein the dyes contain a thiophene group associated therewith. The thiophene group substituted with a chlorine atom is shown in columns 36-37, compound 38.

The present claimed invention in is directed to the claiming of specific ring associated with the dye. See claim 1 wherein Y is a furan ring and Z represents oxazole ring, a thiazole ring, an imidazole ring, a 2-pyridine ring or a 4-pydirine ring; claims 2 contains a generic rings Y-1 to Y-26; claim 5, formula (XXX) contains a thiophene ring, and claim 9 contains a thiophene ring having a halogen as substituent

The compounds disclosed in PN'690 is substantially similar to those claimed in the present claimed invention. It does not exemplify the furan group or pyrrrole ring such as presented in claims 1, 11, but the furan group is within the scope of a group of nonmetallic atoms necessary to from a benzene ring having heterocyclic fused thereto disclosed in PN'690, and the oxygen atom or nitrogen atom belong to the same column of the periodic Table of the Chemial Element. The

worker of ordinary skill in the art would have expected that it provide a methine dye with similar properties. The condensed group in claim 2 is within the scope of generic formula II of PN'698 wherein Y2 are each O, S, Se, N, or C and Q which is a heterocyclic compound such as thiophene group exemplified therein. A prima facie case of obviousness may be made when chemical compounds have very close structural similarity and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." In re Payne, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963), and In re Dillon, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991).

4. Claims 6-9 are rejected under under 35 U.S.C. 103(a) as obvious over either JP62-204250 (JP'250) or JP61-277950 (JP'950) in view of either Parton et al (Parton) or Hioki et al (Hioki) .

JP'250 and JP'950 each disclose the compound of the claimed invention, which contains a thiophene ring which is unsubstituted or substituted with halogen atom (chlorine). See JP'250 page 311, compounds 16-19; 20-22 and JP'950 page 576, compounds 102, 103; page 577, compounds 104-112. Both JP'250 and JP'950 fail to disclose the use of oxygen atom, a sulfur atom, a selenium atom, a nitrogen atom or a carbon atom in association within the nucleus containing a thiophene ring claimed in the present invention. However, the tellurium atom has been known as equivalence or analogues to oxygen atom, a sulfur atom, a selenium atom, a nitrogen atom or a carbon. Note for instance to Parton in column 2, lines 45-68 to column 3, lines 1-34 and Hioki in column 13, lines 11-68. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use oxygen atom, a sulfur atom, a

selenium atom, a nitrogen atom or a carbon in lieu of tellurium atom with an expectation of provide a spectrally sensitizing dye with similar property.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-2, 4, 6-13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,828,087. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claimed invention wholly encompasses the dye of formula (I)-(V) of claims 1-3 of the US Patent Application No. 6,828,087, and the coupler claimed in the patent has been conventionally used in the photographic art.

7. Claims 1-2, 4, 6-13 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No.10/927,469 or either claims . Although the conflicting claims are not identical, they are not

patentably distinct from each other because the scope of the claimed invention wholly encompasses the dye of formula (I)-(V) of claims 1-2 of the copending application, and the coupler claimed in the patent has been conventionally used in the photographic art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

8. Applicant's arguments filed March 23, 2006 have been fully considered but they are not persuasive for the reason set forth in the rejections set forth above and the arguments presented in the Final Office Action March 23, 2005.

The applicants argue that "the methine dye is a sensitizing dye, that is, it is a dye that is a dye for spectrally sensitizing of silver halide grains" and the present invention relates to a silver halide photographic material that contains a sensitizing methine dye. The sensitizing dye is for improving the sensitivity of silver halide grain. On the other hand, the Usagawa et al technique, including compound (35) pointed out by the Examiner, relates to a filter dye is not a sensitizing is added to absorb excess light, and some case decrease sensitivity. In view of this, applicants submit that the present invention is totally opposite to that of Usagawa et al.

The argument is not well-taken. While the applicants argue with respect to the sensitizing dye is for improving the sensitivity of silver halide grain, the claimed invention is not related to the silver halide grains that is spectrally sensitizing with the dyes presented in the claims, but the claiming relates "a silver halide photographic material which comprises at least one sensitizing dye". The dye presents in the claims can be incorporated in any layer of the photothermographic material including the filter layer such as taught in Usagawa et al. The spectral sensitizing dye

and the filter dye are both contains methine group that would considered as methine dye and both absorb light in certain wavelength depending on the length of the methine group. Since both dyes absorb light, they both considered as sensitizing dye. Therefore, there is no difference in function between the dye present in claimed invention and Usagawa et al. The applicants may argue with respect to sensitivity, fog, storage stability and residual colors after processing such as present in the present specification disclosure. However, the results in disclosed in the specification is not commensurate with the scope of the claimed invention. The residual color is related to the color dye such as color dye or magenta dye and the sensitivity is related to the silver halide grains spectrally sensitize with the claimed spectral sensitizing dye. The scope of the claim is broader than the results shown in the specification disclosure and presented in the applicants' argument.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea
June 12, 2006

Thorl Chea
Primary Examiner
Art Unit 1752